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ABSTRACT

This document contains papers from the 1952 Southwest Reading Conference for Colleges and Universities. Included are such papers as "Recent Research in Reading on the College Level" by Emery Bliesmer; "Assessing Student Reaction to a College Developmental Reading Program" by A. J. Kingston, Jr.; "Vocabulary Development in College Reading Programs" by Loris DeFigh; "Types of Reading Programs" by William Eller; "The Reading Improvement Program at Southern State College" by Rudolph Fiehler; "Reading in the College Curriculum" by Harrell Garrison; "An All-School Reading Program in High Schools" by Earl Denney; "Some Procedures in Developmental Reading in College" by Oscar Causey; "Evaluation of Reading Films" by William Eller; and "Developmental Reading Course at Convair" by R. A. Wagner. (TS)

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IMPROVING READING PROGRAMS

for

COLLEGE STUDENTS AND ADULTS

1952

YEARBOOK

of

SOUTHWEST READING CONFERENCE

for

COLLEGES AND UNIVERSITIES

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IMPROVING READING PROGRAMS FOR COLLEGE STUDENTS AND ADULTS

Y E A R B O O K
1952

SOUTHWEST READING CONFERENCE
for Colleges and Universities.
Second Annual Meeting
December 12, 13, 1952
Texas Christian University
Fort Worth, Texas

Edited by
Oscar S. Causey

Published by
Texas Christian University Press, Fort Worth, Texas.

Executive Committee

Albert Kingston
Texas Agricultural and Mechanical College

Louie E. Harris
Oklahoma College for Women

Rudolph Fiehler
Southern State College

William Eller
University of Oklahoma

Oscar S. Causey, Chairman
Texas Christian University

The Yearbook may be obtained by writing to the chairman of the executive committee. Price, one dollar per copy.

P REFACE

The Southwest Reading Conference was organized in 1952 as a result of conversations and correspondence by college teachers in charge of college reading programs.

Some facts were evident. Success in college depends largely upon the ability of a student to read well. The bulk of instruction is to be found in books. Mastery of books is open only to those who can read with some fair speed and some fair degree of comprehension. With few exceptions students who are put on probation or who are dropped from college for poor scholarship are students who read slowly and with poor comprehension. Many students have not developed reading ability comparable to their intelligence. They have minds good enough to learn even more if they could be trained to better reading habits. All college students, regardless of how well or how poorly they read, can improve their reading ability by taking training offered in the reading laboratory of clinic.

There was uniformity of opinion that a need for a conference existed. The fact was recognized that an increasing number of higher institutions of learning were doing effective work with reading programs for college students but that widely different approaches to the problems were being made insofar as administrative policies, methods, techniques, procedures and materials were concerned.

Two needs became clearly evident; first, the need to make known to other interested persons in the various colleges and universities the procedures used in different places and, second, the need to encourage further experimentation and research.

A date for the first meeting was decided upon and a program was arranged. Forty-two representatives from five states were in attendance. The proceedings of the meeting, containing the papers read, were published. An executive committee was elected and the second meeting was planned. A winter meeting was decided upon in preference to a spring meeting. The second meeting was held in December. Colleges and universities in seven states were represented.

This volume contains papers read at the December, 1952, meeting. The policy in the future will provide for publication in the yearbook of articles on reading in addition to papers presented at the annual meeting of the conference.

February, 1953. Oscar S. Causey

PROGRAM

SOUTHWEST READING CONFERENCE FOR COLLEGES AND UNIVERSITIES

Texas Christian University
December 12, 13, 1952

Theme: Improving the Reading Program for College Students and Adults

Registration - 9:30, Fine Arts Building, Registration Fee $3.00

FRIDAY MORNING SESSION - Little Theatre

10:30 - 11:00 Invocation - Professor E. T. Cornelius

Greeting - Dr. Otto R. Nielsen

The Program - Mr. Oscar S. Causey

11:00 - 12:00 Types of Reading Programs
Dr. William Eller,
University of Oklahoma

AFTERNOON SESSION - Little Theatre

Chairman: Dr. Albert J. Kingston, Jr.,
Texas Agricultural and Mechanical College

1:30 - 2:15 Recent Research
Dr. Emery Bliesmer,
University of Texas

2:15 - 3:15 High School Reading Programs
Five reports - Five minutes each. Discussion.

3:30 - 4:45 Sectional Meetings
Evaluation of Reading Films, Room 304, Brite College Building, Dr. William Eller
Evaluation of Reading Materials and Procedures, Reading Laboratory, Brite College Building, Mr. Oscar S. Causey

5:00 Observation of a class in Developmental Reading, Reading Laboratory, Brite College Building.

(over)

EVENING SESSION - Dining Hall, Administration Building

Chairman: Dr. Rudolph Fiehler
Southern State College

7:30 Dinner

Address:
Reading Programs in the High School and College Curriculum
Dr. Harold Garrison, President,
Northeastern State College of Oklahoma

Meeting of the Executive Committee
Board Room, Administration Building

SATURDAY MORNING SESSION - Science Building, Room 112.

Chairman: Mr. Louie E. Harris,
Oklahoma State College for Women

9:00 - 9:30 Business Meeting

9:30 - 10:20 Vocabulary Building
Miss Loris DeFigh, University of Tulsa

10:20 - 11:15 An Exploratory Venture in a Small College
Dr. Rudolph Fiehler,
Southern State College

11:15 - 12:15 Student Reactions to Reading Programs
Dr. A. J. Kingston,
Texas A. & M. College

Executive Committee

Dr. William Eller
Dr. Rudolph Fiehler
Mr. Louie E. Harris
Dr. Albert J. Kingston, Jr.
Mr. Oscar S. Causey, Chairman

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RECENT RESEARCH IN READING ON THE COLLEGE LEVEL

Dr. Emery P. Bliesmer, The University of Texas

The research reviewed in this paper has been arbitrarily limited to that reported in the literature during the last five years. While reports of studies relative to reading on the college level have appeared with some frequency during the last decade or more, there has been a marked increase in the number of such reports during the interval covered by this paper. Other than noting such an increase in the literature directly, this increase is further evidenced by the appearance, for the first time, of a yearbook of the National Society for the Study of Education which is devoted, in part, to reading at the college level, i.e., the Forty-Seventh Yearbook (35); and it has been only this year that a specific section for research in college reading is to be found in the Review of Educational Research in its three-year-cycle topical coverage (12). As still further, but perhaps needless, evidence of the rapidly increasing importance and recognition being given to college reading, consider the recency of the Southwest Conference on Reading.

Descriptions of various college reading program were found to be rather plentiful. While a review of these descriptions is not a purpose of this paper, it might be pointed out that such are to be found in over twenty of the references cited for other purposes in this paper (2; 3; 5; 6; 7; 8; 11; 13; 23; 38; 39; 30; 36; 40; 41; 42; 43; 44; 45; 47; 51; 53). It will suffice to say, at this point, that the various programs found described range from the very simple or meager ones, offering little more than attempts to increase reading speed by means of some mechanical device, to some rather elaborate ones which include research relative to various methods, systematic teacher-training programs, extensive testing, diagnosing, and evaluating of results, and the like; and that the direction of, or responsibility for, such programs varies considerably, as does also the type of personnel engaged in such work.

Evaluation of the effectiveness of particular reading programs was involved in a considerable number of reports (2; 7; 8; 11; 13; 26; 28; 29; 30; 33; 34; 40; 41; 42; 44; 45; 46; 47; 51). Postive results have been reported, almost without fail. However, methods and bases used for judging such effectiveness varied tremendously. One program involved no diagnostic testing program, procedures used being determined by the type of assistance requested by students, and the stress being upon acquisition of, experience with a wide variety of, and interpretation of appropriate use of, new skills (13). Student support of this particular program for a period of over seven years was considered as indication of its effectiveness. Another report (30) claimed evidence of improvement on the basis of a comparison of pre-training test results obtained with the Iowa Silent Reading Tests with test results obtained at the end of the training period with the Nelson-Denny Reading Test. This particular writer acknowledged the lack of comparability of norms; but she stated that "the purpose of affording the students evidence of their progress since the instruction began" was still served. Still another report (42) claimed an average improvement of 50 percent in the reading of all students who had received training in the reading laboratory and that this particular training had made it possible for a considerable number of students to continue college work successfully. Particular tests used, if any, other bases for evaluating, or specific reading skills in which improvement was attained, were not identified. Simpson (45) reported that, since the Reading Service Laboratory at Carnegie Institute of Technology had proved to be of considerable help to many students, experimental comparison of groups was rarely ever made. He implied, however, that such comparisons made during the initial stages of the service indicated that it was beneficial to a considerable number of freshmen students.

A number of studies based conclusions relative to the effectiveness of particular programs upon comparisons of pre-

and post-training test results obtained with equivalent forms of a test, or tests, the Iowa Silent Reading Test being the test which was used most frequently. A statistical analysis of data was not employed in a number of the studies. Brown (7) found that fifty-five of the poorest readers among the entering students at the University of Minnesota (those scoring in the lowest 11 percent on the Nelson-Denny Test and placed in a special reading section) made an average growth in reading of 3 years in one quarter (from a 9.6- to a 12.4- grade equivalent level). Another group of forty-four students who had scored from the twelfth through the twenty-second percentile on the Nelson-Denny Reading Test initially, and who had completed a communication skills course in which emphasis was on one of three areas other than reading (listening, writing, or speaking), was found to have progressed a little over a year (from a 11.2- to 12.4 grade level), during the quarter. One-hundred-twenty-two students below the fortieth percentile on the initial Nelson-Denny Test, and in one of the special emphasis sections other than reading, were also found to have made almost a year's growth (from a 12.2- to a 13.1- grade level average).

After a laboratory course at the University of Chicago, eighteen of twenty-two entering students weakest in reading were reported by Burfield (8) as having gained enough in reading to be able to go into the writing section of English 1 or into English 2. Somewhat higher gains in rate than in comprehension were found; but, in general, substantial rate gains were accompanied by substantial comprehension gains. Finding gains in vocabulary development to be less substantial led Burfield to conclude that either vocabulary development responds less to training or else the American Council Test does not adequately reflect vocabulary growth. Charles (11) presented data to show that those students in a University of Nebraska reading and study improvement course who were in the lowest quartile with respect to ACE "L" scores made the greatest proportional gains in rate and comprehension.

Schleich (41), in a report of a three-year experiment at Worcester Junior College, stated that at the beginning of the first year over three-fourths of the students placed in a special reading class were reading below a tenth grade level (or determined by the Iowa Silent Reading Test). At the end of a semester of training, only two were still reading below a tenth grade level, with one-third reading on a college level. All of those reading below a twelfth grade level continued with another semester of training, with a mean gain of over two years being achieved. The program the second year was much the same, except for the addition of the Harvard films the second semester. Final appraisal at the end of the second year showed gains comparable to those of the first year.

Watts (51) obtained results with a rather unusual program. Students were given case studies, these were discussed, individual and group recommendations for correction were made, and actual remedial procedures which had been employed were revealed. The students applied the materials to themselves and diagnosed and prescribed for their own problems. Watts claimed that improvement was shown by Schrammel-Gray High School and College Level Reading Test scores; but no indication of significance was given, nor was a control group utilized.

In contrast to the reported studies just cited, the studies referred to immediately following did employ some type of statistical analysis of results. Murroughs (34) found thirty adults taking a reading improvement and enhancement course to have made significant improvement, as determined by Standard Reading Achievement and Effective Reading Rate Tests. Sheldon (44) reported results obtained with an experimental reading program for medical students. Scores obtained initially with the Iowa Silent Reading Tests showed only three subjects above the fiftieth percentile. At the end of the nine-week training period, all except two had reached or exceeded the median norm, and these two showed significant gains also. Speed improvement ranged from twenty to one-hundred-seventy-five words per minute, with a median improvement of eighty-five words per minute.

Staton (46;47) presented comparative data for twelve Air Force officers who had completed a reading improvement course and after a time lapse of from four to twelve months had completed another essentially similar course. Analysis of data indicated that marked increase in rate, without comprehension loss, could be expected from reading improvement courses and that repitition of a course tended to result in higher reading rate than that achieved at the end of the original course.

Decidedly in the minority are the several studies which utilized control groups in judging effectiveness of results. Barbe (2) found gains in reading rate, after twelve weeks of training, to be significant for an experimental group of twenty-five students at Kent State University. The progress of a control group was almost static and was not significant. Sixty-two students enrolled in the Reading Laboratory of Western Michigan College were found by McGinnis (28) to have made statistically significant gains when initial and final scores on the Iowa Silent Reading Test were compared. No control group was involved in this comparison; but further comparisons were made with three groups of twenty students each: an experimental group with only reading laboratory training, a control group which had completed a how-to-study course, and another control group which had had neither the reading nor the how-to-study course. Comparison of initial and final scores on the reading test of the Ohio State Psychological Examination showed that the reading laboratory group had made statistically significant gains; the control groups had also gained, but not so significantly. In another study reported by McGinnis (29), an experimental group of twenty students was found after sixteen weeks of training to have made significant gains in reading ability when compared with an equated control group whose members had not had training.

Several criticisms have been directed toward evaluation procedures employed. Murphy and Davis (33) posited that progress reports of remedial work should be regarded skeptically as common errors in method often led to erroneous indications of progress. Failure to correct test scores for chance success and to consider regression effects were mentioned specifically. Robinson (40), after reviewing current remedial practices at the college level, also wrote somewhat caustically concerning methods of validation of techniques used in college reading programs. She pointed out that academic criteria were generally disregarded and that other "facile but less relevant" methods were used for demonstrating suggested improvement. She further maintained that motivational factors involved in selection of remedial course work by students had been completely neglected in reported appraisals. Results of a questionnaire-interview survey of Yale University students' attitudes toward a non-credit and volunteer remedial reading course were presented. Robinson found a wide range of initial motivation. Less than half revealed an original motivation which might be considered advantageous to instruction; the majority participated either through coercion or as a means of avoiding certain environmental demands. Robinson also reported an evaluation of the Yale Clinic program in which scholastic performance was used as a criterion. Purportedly, an attempt was made to take initial motivation into account also. Following the training period, the academic gains made by the remedial group over a control group approached significance at the 10 to 20 per cent level.

Use of academic achievement as a criterion was also found in several other studies. Barbe (1), comparing grade point averages of subjects during the quarter following remedial work with such averages for the quarter a year later, found changes in these averages to be significant at the 5 per cent level for the experimental group but not significant for the control group. Charles (11) compared his laboratory group with the control group with respect to grade point average during the first semester. He found that 65 per cent of the laboratory group had earned higher marks than the control group, but the difference between mean weighted averages was not significant. Comparisons made during the second semester showed that the experimental group had maintained its higher average, but the difference was still not

significant. In one of the studies reported by McGinnis (29), and cited earlier, the persons enrolled in the reading laboratory made statistically significant higher point-hour ratios than did the equivalent group of control subjects.

Very little direct study of the permanency of results appears to have been made. Sheldon and McGinnis have given stated recognition to the problem. Sheldon (44) questioned the permanency of rate gains achieved in his study, and he expressed an intent to do a further survey later. McGinnis stated directly that she had made no attempt to determine the permanency of gain in reading ability in one of her studies (29). A more or less avowed intent to investigate permanency of improvement was included in the studies reported by Barbe, by Charles, and by Staton. Both the experimental and control groups in Barbe's study (2) were retested six months after completion of the former group's training. The changes in rate for the experimental group, while having decreased slightly, were found still significant over those of the control group. The permanency of changes in grade point average were not purposively investigated, but since the comparisons to determine the significance of changes were based on results obtained a year apart, the suggestion of permanency is certainly more than a slight one. A strong suggestion of permanency is also contained in the report by Charles (11), considering the continuation of the higher although still not significant, grade point average of his experimental group. Staton's analysis of data obtained relative to repetition of a reading improvement course caused him to conclude that a decline in rate may be anticipated, following completion of a course, but not one extending to the original low point (as determined by an initial test)(46).

Attempts to evaluate the materials, methods, or procedures used in reading programs have been made by several investigators. McGinnis's studies (28;29) were made in an attempt to evaluate the materials and procedures used in her reading laboratory program. The finding of statistically significant gains for the experimental groups involved led her to assume that the materials and procedures were of value in improving both the reading ability and the point-hour ratios of college students. She attributed the gains made, in part, to the nature of the materials used in doing corrective work, these having been primarily directed toward academic attainment rather than merely an increase in reading rate. She also assumed that mechanical instruments and techniques used had some effect in facilitating development of reading and study skills, but she did not regard these as being the primary effecting factors. The medical students in Sheldon's investigation (44) requested that materials more related to their fields be used in the reading program. This was tried, and while the experiment was not specially directed toward this point, indications were that such materials were inadequate for improvement purposes. Westover and Miller (53) described individualized procedures used with an adult reading class. The forty hours of training provided included practice with an individual pacing machine, tachistoscopic training with digits, and rapid reading paced by a group reading timer. Information relative to results was to have been reported at a later date, but this reviewer was unable to locate such information.

Investigations concerning effects achieved by use of specific mechanical methods have been reported by Freeburne, Glock, and Lewis. Freeburne (19) used the Flashmeter for measurement and training in perceptual span and speed. Subjects used were University of Iowa freshmen in six remedial classes who had scored at or below the twenty-fifth percentile on the Bloomers Rate of Reading Comprehension Test. Two teachers each taught a perceptual speed group, a perceptive span group, and a control group. For a period of three weeks, training in perceptual speed or perceptual span was given the experimental groups while the control groups carried on work in speaking or writing. Then all groups were given intensive reading training for three weeks. Gains, as measured by the Iowa Silent Reading Tests, made by the groups trained in perceptual speed and those trained in perceptual span did not differ significantly

from those made by the control group, suggesting that the Flashmeter testing alone may have provided effective practice for the control group.

Glock (21) reported a study of the relative effect of three methods of training, or conditions upon eye movements and reading rate. Two sections of freshmen remedial reading groups were assigned to each method, with three teachers being involved in the study. Under one condition, mechanical spacing and pacing obtained, the Harvard Films being employed to flash test in phrases across and down a screen. Under the second condition, only mechanically controlled pacing was imposed, being achieved by a film developed by Glock whereby two lines of text were projected simultaneously. Under the third condition, no means for mechanically controlling reading were used; the subjects read printed materials under the verbal set to attempt to read as fast as was consistent with comprehension. The text used in all three methods was that of the Harvard Films. Nine reading subtest scores (obtained with the Traxler High School Reading Test, the Iowa Silent Reading Test, and the Bloomers Rate of Reading Comprehension Test) and Ophthal-O-Graph eye movement records were used in the analysis of results. The evidence did not show that techniques designed specifically to train eye movements were generally more effective than the other methods. Considering certain of the criteria, controlling eye-movement practice did prove to be superior in training rate of comprehension. No significant differences were found between methods used for improving rate when no level of comprehension was set for the reader. The efficiency of a method varied with the criterion and the teacher.

A report of an investigation by Lewis (27) showed that when two groups of adults, equated on the basis of initial reading speed, were trained by two different methods, the group trained in comprehension made a gain in speed nearly three times that of the group trained exclusively to improve eye movement exercises. A number of mechanical devices (flashmeter, metronoscope, and mimeographed eye-improvement exercises) were used exclusively with the latter group; the former group concentrated on structure of material, speed of comprehension, and insight into an author's thinking, meaning, and intent.

Information with respect to incidence of poor reading ability among college students is to be found in several reports. Bear (4) alludes to surveys which indicate that an average of 15 to 20 per cent of freshmen may be expected to be quite deficient in reading ability, with from 5 to 10 per cent being so seriously retarded that extensive individual help is needed. On the basis of Nelson-Denvy Reading Test scores, Brown (7) found 6 per cent of University of Minnisota entering students reading at ninth grade level or below, 14 per cent at tenth grade level or below, and 21 per cent at eleventh grade level or below. For 338 entering students tested with the Iowa Silent Reading Test, Brown found 12 per cent reading at ninth grade level or below, 23 per cent at 10th grade level or below, and 33 per cent at eleventh grade level or below. Comparison with other colleges and universities led Brown to view the spread as not unusual but rather common.

Several investigations of the reading interest, habits, or attitudes of college students have also been reported. Abraham (1) administered a questionnaire to a cross-section of some twelve-hundred freshmen and seniors in nine colleges and universities. He found heavy school assignments checked most often as a reason for not reading more. Picture magazines were most widely read and preferred, and a lack of interest in scholarly and professional publications was indicated. Brown (7), comparing questionnaire results with individual scores and final improvement achieved with his reading training program, found that improvement seemed to depend strongly on effort, frequent use of the dictionary, practice and observation of practice effects, wide reading, attendance at Harvard Reading Films, and type of skill emphasized. Telephone answers to a short questionnaire were secured from a stratified sample of one hundred University of Illinois students by Chapin (10). Results indicated that approximately half

read for recreation more than four hours per week, the percentage increasing with classification level, more veterans than non-veterans, and more working than non-working students read more than four hours. No differences were found for sex and martial status, and books most frequently mentioned were mostly standard and above (Flesch index). Hull (22), studying the reading interests of freshmen, most of whom were from rural districts, found a preference for short easy items, with more juvenile reading among junior college students than expected. The strong influence of book clubs and pocket book editions was noted, and the classics encouraged by high schools and on required lists were practically out of the picture. The amount of mystery story reading was surprisingly small. Michael, Rosenthal, and De Camp (31) found the literary preferences of one-hundred-twenty- Princeton students to be affected more by their own tastes than by the prestige of authors, a contradiction of the traditional thesis of prestige-suggestion. A strong interest in vocational adjustment was found for veterans enrolled in a junior college by Weingarten (52). However, the reading of these men during the war and in college indicated an extension of interests and needs beyond the vocational and a search for reading materials to satisfy such. An investigation of the extra-curricular reading interests of students was also made by Jones (24). Preston (37) found that a small group of superior college women, who had relatively poor reading ability, felt themselves handicapped, but that they tended to rationalize, i.e., all found certain advantages in slow reading.

The problem of readability appears to be obtaining an increasing degree of recognition. Flesch's presentation of new readability measures in 1948 (16) was followed by a series of criticisms and rebuttals. Farr and his associates analyzed twenty-two employee handbooks and presented resulting data in justification of their simplification of Flesch's formula (14). Flesch (17) and Klare (25) presented rebuttals, and a reply was made to these (15). Michaels and Tyler (32) compared readability ratings obtained for a selection of United National publications by applications of the Dale-Schall, the Flesch, and the Forge Formula. The Dale-Schall and Flesch formulae placed the materials mostly at a college freshman level; the Forge formula placed them near an eighth grade level. A reading test on the materials indicated that these were too difficult for a group of pupils whose average reading ability was that of college freshmen.

Prognosis and diagnosis in reading improvement programs were expressed as problems by some writers, and several experimental investigations were reported. Despite the relatively elaborate testing program in the University of Chicago Reading Clinics, Burfield (8) expressed a need for better screening and diagnostic test. She found that in general, those having lowest vocabulary scores gained the least; those having lowest rate scores gained the most; and those having highest comprehension scores gained the most. Brown (7) reported that high school rank furnished a fairly good index of what progress might be expected in vocabulary improvement and paragraph comprehension

Carter (9) used a Maico Psychometer to measure changes in palmar skin resistance of each of twenty inferior and twenty superior readers while these subjects read portions of the Gray Oral Reading Paragraphs Test. He found that average change in palmer skin resistance could not be expected to differentiate between superior and inferior readers except as materials became more difficult. He suggested use of his technique in measuring frustration similtaneously with the measurement of reading achievement and in determining whether psychotherapy or merely remedial tutoring was needed. Freeburne (18) presented figures to twenty-four subjects by means of a tachistoscopic device and then determined the number of figural after-effects obtaining. He found positive correlations between

number of figured after-effects and total and subtest scores on the Iowa Silent Reading Test, but only one was significantly greater than zero. He concluded that the results of his study must be considered to be negative, insofar as use of the tests as tools for the teacher of remedial reading was concerned. Triggs (50) concludes, on the basis of research, that tests which break down mental abilities are much more valuable for determining techniques to be used, and predicting success in, corrective work than are tests measuring general ability. Tinker (49), coordinating the findings of a series of experiments, found that pause duration, taken alone, was not a valid measure of reading proficiency; but when combined with fixation frequency, the resulting perception time appeared to be a fairly valid measure.

Several reports were concerned with reading ability and scholastic ability or academic achievement. Murphy and David (33) reported small, but significant, negative correlations between average freshman grades and ability to reason in reading (vocabulary level being held constant). Preston and Tuft (39), investingating the reading habits of twenty-two junior women who were elibible for Phi Beta Kappa, found evidence to contradict the popular assumption that good scholarship demands efficient reading ability as a prerequisite. In terms of the particular tests and norms used, from one-third to one-half of the group was lacking in reading speed, reocgnition span, freedom from regressive movements, and comprehension. Wheeler and Wheeler (54;55) reviewed a number of studies and pointed out that indications of reading ability are not necessarily measures of intelligence and that the difficulty of reading material in an intelligence test does not differentiate the poor reader unless it is sufficiently above his reading level to interfere with rate and comprehension. A study of reading proficiency and intelligence ratings of University of Miami freshmen led them to conclude that the ACE Psychological Examination is materially influenced by reading efficiency.

This paper will conclude with brief references to several investigations concerning, in a braod or general way, possible factors affecting reading. Strother (48) found that the level of muscle action accompanying the reading of materials expressive of happiness, hate-anger, tranquillity-reverence, and fear differed significantly. The greatest reaction was to fear-involking material; the least to tranquillity-reverence. He also found a more widespread involvement, heightened by practice, for a group of unselected subjects than for a group well-trained in interpretative reading. Murroughs (34) reported finding no significant correlations between improvement found on reading tests, after completion of a reading program, and retinal rivalry rates. Freeburne and Fleischer (20) investigating the effects of music distraction upon reading, found no significant differences between rate and comprehension performance of a control group and groups exposed to classical, semi-classical, or popular music during reading. They did find that the group exposed to jazz read significantly faster than the control group.

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ASSESSING STUDENT REACTION TO A COLLEGE DEVELOPMENTAL READING PROGRAM

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Since the end of World War II many institutions of higher learning have developed various types of programs designed to improve the reading skills of their students. Most of these programs have placed major emphasis on the development of faster reading rate and greater reading comprehension. Many reports of the successes of such programs have been published in various professional journals. Almost all reports seem to emphasize are increased reading rate and comprehension as measured by standardized testing devices or, in a few cases, the improved academic achievement of students who had participated in reading programs. Few reports have been published concerning the reactions of participating students toward the programs themselves. While there should be no doubt that improved reading effectiveness and academic achievement must be considered as the primary goals of any college reading program, the discovery of how a student feels about the course can also furnish evidence of its success. This factor seems to have been overlooked or taken for granted in most institutional programs.

Reading specialists continuously emphasize the importance of motivation if the student is to achieve maximum benefit from a reading program. Most specialists also agree that it is often difficult to ascertain the degree of motivation possessed by each student enrolled in a group program. At the same time for reasons of expediency numerous colleges and universities have developed group reading programs. Sometimes it seems that we take for granted that each student possesses a maximum degree of motivation when he enters a program and that he maintains that motivation throughout the entire program. As teachers we know from experience that we can make no assumptions of this sort, but that we must continuously provide experiences which tend to increase and maintain the motivation of all of our students. It seems reasonable to assume that one of the best ways to assess the motivational needs of students is to determine how they feel about a program or course. This study represents an attempt to describe the reactions of a group of students to the various techniques employed in a typical group reading program and to assess the opinions of the students regarding the value to them of such training.

The remedial reading program at the Agricultural and Mechanical College of Texas is administered under the guise of a credit basic course. The majority of students enrolled in the program have

either freshman or sophomore classification. The course is so organized that each section meets in groups of thirty to thirty-five for two fifty-minute periods each week. These periods are devoted to such activities as tachistoscopic training and practice special reading exercises from a workbook. Special reading films are also employed at these times. In addition to these periods of group work, each student devotes fifty minutes each week to training with a reading accelerator. Accelerator training is individualized so that each student progresses at his own rate.

In order to determine the reactions of students to the reading program, a questionnaire was administered to 376 students enrolled in the course during the ~~fall~~ Spring semester of 1952 and to 408 students enrolled in the spring semester of 1953. All questionnaires were anonymous so that students would express their reactions freely. The questionnaires contained the following instructions: "We are interested in discovering how you feel about the Remedial Reading Program. Place a check in the space which best indicates how you feel about each question." In general the items were designed to evaluate the attitudes of the students regrading the value of the course in the improvement of reading skills and toward the various mechanical devices and psecial exercises employed in the program.

A tally of the responses to the questionnaire indicated that most students felt that the course had helped them to improve their reading skills. A majority also felt that the course had helped them to improve their reading skills. A majority also felt that it was easire to read their study assignments as a result of the program. It was interesting, however, to note that only slightly more than one-half of the students felt that the course had helped them to improve their academic grades. One reason for this attitude seemed to be that the questionnaire was administered prior to final examination week and many students indicated an unwillingness to make comments either pro or con. It should be also pointed out that in general the students who were enrolled in the reading program tended to represent a below average group in scholastic aptitude. For many students poor reading skills was not the fundamental cause of academic difficulty.

An apparent inconsistency was noted in the responses made to the items designed to evaluate the development of mature reading habits. Although over sixty percent of the students indicated that they enjoyed reading more than they had prior to enrolling in the program, only thirty-five percent stated that they did more recreational reading than they had prior to receiving training. Many students volunteered the information that they were unable to do as much recreational reading as they would have liked due to the pressure of their academic duties. It is doubtful, however, that this excuse can be accepted at face value. It seems more likely that many students will not transfer acquired reading skills to recreational reading unless this goal is emphasized in the reading program.

The responses to items designed to determine the attitudes of students toward the various devices employed in the program were interesting. Most students felt that the reading accelerator was most beneficial. The reading films, the workbook, and the tachistoscope received votes in that order. Any interpretation of these responses must rely upon the answers to other questions not encompassed by this study. Can students tell which technique of remediation is the most or the least valuable to them? Did students respond to the items in terms of their own felt needs? Did the methods of utilizing the devices influence the responses of the students? As previously mentioned, this study did not presume to investigate these factors, but these results point out the need for a more careful investigation designed to demonstrate the value of using various mechanical devices for motivating students.

The use of the questionnaire method enabled those who were conducting the reading program to ascertain how the participating students reacted to it. Although the results seemed to indicate that most students felt that they had benefited from the course, they also revealed areas which seemed to need further analysis. For example during the fall semester, many of the

The following table illustrates the responses to the questionnaire discussed in this study.

Instructions: We are interested in discovering how you feel about the Remedial Reading Program. Place a check in the space which best indicates how you feel about each question.

Item		Fall Semester 1951		Spring Semester 1952	
		Number Students	%	Number Students	%
1. Has this course helped you to improve your reading skills	Yes	365	97.07	395	96.81
	No	11	2.93	10	2.45
	Und.	0	0.00	3	.74
2. Do you find it easier to read your study assignments now than you did before taking this course?	Yes	326	86.70	360	88.24
	No	50	13.30	47	11.52
	Und.	0	0.00	1	.24
3. Do you feel that this course has helped you to improve your grades in any of your academic courses?	Yes	205	54.42	259	63.48
	No	151	40.16	136	33.33
	Und.	20	5.32	13	3.19
4. Do you now enjoy reading more than you did before taking this course?	Yes	241	64.10	245	60.05
	No	131	34.84	158	38.73
	Und.	4	1.06	5	1.22
5. Do you do more recreational reading now than you did before taking this course?	Yes	133	35.57	144	35.29
	No	240	63.83	257	62.99
	Und.	3	.80	7	1.72
6. In order for you to develope adequate reading skills, do you feel that the length of this course is:	Too Long	15	3.99	24	5.88
	Too Short	242	64.36	214	52.45
	Just Right	119	31.65	167	40.93
	Und.	0	0.00	3	.74
7. Which of the techniques used to help you has been the <u>most</u> valuable?	Tachistoscope	19	5.05	24	5.88
	Reading Pacer	150	39.89	165	40.44
	The Work Book	44	11.70	56	13.73
	Reading Films	133	35.37	116	28.43
	Undecided	18	4.79	22	5.38
8. Which of the techniques used to help you has been the <u>least</u> valuable?	Tachistoscope	156	41.49	177	43.38
	Reading Pacer	68	18.09	58	14.22
	The WorkBook	70	18.62	63	15.44
	Reading Films	64	17.02	86	21.08
	Undecided	18	4.79	22	5.38
9. Do you feel that sufficient time was devoted to vocabulary development?	Yes	145	38.56	191	46.81
	No	229	60.90	209	51.23
	Und.	2	.53	8	1.96

reading instructors believed that too much time was being devoted to vocabulary development. The questionnaire indicated that the students disagreed. Similarly the legnth of the course during the fall semester had been approximately twelve weeks for some of the sections. Many students felt that the program was too short. As a result of the questionnaire the legnth of the program was lengthened to fifteen weeks and more vocabulary training given. The results of the spring questionnaire served to reflect these changes. Since motivation plays such an important role in reading improvement it would seem that some method of this type which would reveal student reaction to the course content, teaching techniques, and mechanical aid should supplement the more common methods used in the evaluation of a reading program.

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VOCABULARY DEVELOPMENT IN COLLEGE READING PROGRAMS

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Reading is by nature a thoughtful activity. The chief characteristic of any good silent reading performance is mental elaboration of ideas. The ideas are those presented by the writer, those brought into the reading situation by the reader out of his own past experiences, the new ones created and the old ones modified by the intermingling of the two. Ideas must be understood when presented; they must be interpreted, evaluated, and applied in some way in order for reading to serve a worthy purpose.

However, none of this mental activity involving ideas could happen without adequate command of the means by which the ideas are first stimulated. Words are the "triggers" that set up the patterns of thought in the reader's mind at the outset. Without complete understanding of these "triggers" the whole communicative experience would be impossible. Both writer and reader must understand the symbolic system employed in order to engage in linguistic intercourse. Words and ideas are inseperable. The former is a means to the latter. This being the case, emphasis must be placed on vocabulary control and development in any good reading program. Students must, as they express it, "talk the lingo" of many areas of expressed ideas. They must become sensitive to the thought conveyed. They cannot be like the oral reader who expressed with exactness a selection to an audience, but upon being questioned about the ideas she had read, replied, "I don't know. I wasn't listening."

Individuals are constantly expressing their own ideas in one way or another. They are also continuously engaged in getting impressions of the ideas of others. All human beings have natural urges to communicate with one another. They will develop these abilities in the natural course of growth. In a systematic program of developing ability to express thoughts or derive impressions, we are simply training individuals to do with greater effectiveness what they have the natural urge to do, and would do, in one way or another, anyway.

Students have a need to develop two kinds of vocabularies: an <u>expressive</u> vocabulary which includes the symbols used in writing and speaking, and the <u>impressive</u> vocabulary which they will use in reading and listening. There will be symbols that students will know as a part of one of the above vocabularies and not the other. For example, it is not uncommon for a student to have a "hearing"

knowledge of a term and yet be unable to use it to express an idea of his own. Recently I overheard a student remark about a work, "Sure, I know that. I've heard it lots of times!" but when asked to give a clear explanation of its meaning, or to use it correctly to express an idea, he was completely at a loss to do so. We superficially hear words used and see them in print, without any clearcut concept of the reaction their use should stimulate in our minds.

The example cited is illustrative of one of the major problems in vocabulary development at the college level - namely, to make students more acutely aware of their vocabulary inadequacies. Years of practice in passing superficially over words they do not know, moving blithely along the lines of print, happily ignoring whatever strange words are there, is not conductive to vocabulary growth.

One of the first steps toward vocabulary development among college students is to develope a "word conscience;" a word conscience that nags at the reader every time he snubs a symbolic friend. He must learn to recognize when a word does not create an impression in his mind and discipline himself to see its meaning at once, both in the present context where it occurrs, and also wherever else it might be encountered presenting a different concept.

A second problem with which we must deal is an inadequate background of experiences necessary for the varied interpretations that must be made by the reader in widely differentiated areas of content. This is particularly true at the college level where higher level reading materials deal with ideas that are so abstract, so elusive, or so "long ago and far away" from the experiences of the reader. I can recall a young man with whom I worked recently who, over the years of pre-college, had approached the problem of vocabulary extension largely through looking up lists of words in the dictionary. He had looked over the meanings given; assumed they said somewhat the same thing, picked out the shortest one (He was physically lazy as well as mentally so!), and wrote it down. Upon the surprising discovery of the extent to which to which one can go in interpretating and using a single term, he cried in distress, "I'll never learn all that.' I thought I knew the meaning of these words! When words can stand for so many concepts, many of which the student has not an adequate experiences to develop, we have an extremely hazardous pitfall to avoid; that of talking with words about words. To do so can become a reckless, thoughtless, and extremely worthless activity indeed.

A third problem that students present is their inability to use the skills of word attach necessary to identify the word to be learned. These skills may seem to be quite elementary to some, and it is quite true that they are first taught at the elementary school level, but nevertheless, students continue to arrive at college unable to employ the necessary tools of word attack that are absolutely essential in the approach to word-learning. College reading programs have no other choice than to assume the remedial job of supplying the necessary instruction in these skills to students whose previous training in them has proved inadequate. Without the ability to employ these lower-level skills, we cannot move with the student into the wordstudy areas that employ higher-level abilities in vocabulary development.

HOW DOES A VOCABULARY GROW?

Vocabulary development is a gradual process of growth in word control. This growth process proceeds in three directions which might be referred to as height, breadth and depth.

Height begins the process. Children build their knoweldge of words upon words, acquiring more and more in number, piling them up higher and higher. Through listening and talking the number of known words increases until by the age of six, when they enter school, they bring with them a speaking and listening knowledge of approximately 2,500 words. Then the reading vocabulary is introduced. In the beginning much of the vocabulary consists of a transfer of terms from those already known in speaking and listening to the reading and writing situations. After a while the vocabularies of all the facets of language become more

parallel and together move upward in an inter-related way. Words met in reading must become usable to the student in speaking and writing. Words heard and seen must convey meaning in reading situations.

In order to change unfamiliar words into familiar ones one must acquire a working command over certain types of skills: (1) those concerned with pronounciation, and (2) those concerned with understanding meaning.

Students attempting to attach an unfamiliar word must employ the following aids:

a. Use of the context surrounding the unknown word as a means of figuring out what the word is;
b. Use of certain analysis techniques, either phonetic or structural, i.e., consonant letter sounds, vowels, syllabic accent, etc.;
c. Use of the dictionary.

These aids are very useful to the student if he knows how to use them. Many college students do not. It has been my unfortunate experience to encounter many college freshmen who have no working knowledge of the independent attach that can be made upon a word.

They seem to be unequipped to make use of the very elementary knowledge of the application of the final e principle, vowel diagraph principle, understandings concerning syllable division, assignment of vowel sounds within syllables, etc. when attempting to pronounce a new word. They depend upon context as best they can, or, if they are really concerned about complete clarification of the word, they seek it in the dictionary. If they are not concerned, they ignore it and go on without a clarification.

A young freshman I observed recently will serve as an example of the use that can be made of some of these skills. I watched him attack the word antipathy as follows: He first analyzed visually the word's structure; that is, its root plus the prefix anti, and noted the y ending, often found on noun forms. He recognized the meaning of anti as "against." So he reasoned the word as naming something which is against something. His next step was to identify the meaning of path. He made an association at this point; he recalled that the word sympathy contained the same word part. This word means "same feeling" or "being of the same frame of mind." Therefore path in antipathy must mean "feeling," and with the suffix anti, the meaning must be "feeling against something," or "being of opposite frame of mind." He checked his reasoning against the context, decided it made sense and continued on his way in the reading situation. He knew and employed useful tools of structural analysis to enable him to get the new word quickly without having to interrupt the line of thought while he consulted a dictionary.

It should not be assumed that the student should never use the dictionary. Indeed it can be one of his most valuable tools. However, it should truly be a tool and not a crutch. A dictionary might well be employed in the above example at the end of reading session to check the line of reasoning of the student. In this way he may be sure his attack was correct. It should be used also when the efforts of independent attack do not yield the desired results. They cannot always do so in a complete way, but to the extent that they can be used, they are time savers and efficiency builders.

The use of the dictionary presents its own problems with students. Unfortunately their command of the dictionary skills is often so poor that they will spend as much time attempting to utilize the dictionary as they will with the actual material that they wish to read. When this is the case the dictionary cannot function as the aid it is meant to be. If students better understood the use of guide words, the pronunciation symbols, accent marks, and other such skills concerned with locating the word and interpreting its meaning; if they were able to understand the meanings given, make the appropriate selection for the given context in which the word appears and "ture" the meaning into this context in an understandable way, much wasted effort could be conserved.

I do not wish to imply that their previous training has neglected to include the skills. Probably these students have been subjected to at lease some of them

before in their earlier school experience. However, it remains a fact that many of them are in college today without the command of skills necessary to effectively employ them in their study activities.

If students were able to efficiently employ all these techniques, they would have tools with which to work toward building their stock of words, and the pile would grow higher and higher. The numbers of words added should increase continuously.

Vocabulary must grow in breadth as well as height. This means that students extend outward, broadly, their knowledge of known words. There are many ways that this is done. One way is to recognize the many forms that a single word can have and the many functions it can perform. If a new word is first met as a noun, then the student may extend his vocabulary knowledge of that single word by discovering if it can function as a verb, an adjective, or some other part of speech, sometime by merely changing slightly its basic form or structure. This is illustrated in the word ego, which can become egoist, egotist, egotistical, egoism.

This knowledge can broaden still more if a student comes to understand the varient meanings the word can have, sometimes without changing its structure or function in the sentence. The simple word line, functioning as a noun without changing its form, may mean: a line of print, a clothes line, a telephone line, a line of attack, a line of people, a fishing line, a line of talk.

Becoming acquainted with a word's relatives can broaden the vocabulary knowledge we seek. An example of this is in the word automobile, which can spread its relations over a wide area to include autocrat, automotive, autobiography, automatic, autograph, automoton, autonomy, autointoxication, authority, authorize, authentic, and autopsy, and many others.

One can further broaden their word understanding by association of words with other words when their meanings contrast. It has been said that, "A thing is never so black as when it's compared with white," and that is appliable here. Sometimes meanings can not be so well understood until they are placed alongside an opposite meaning for comparison. Using antonyms and synonyms is a very effective way to intensify understandings of the known word and also to stretch forth to the realms of others, some of which are unfamiliar and offer new opportunity for more word exploration.

In addition to antonyms the word study would also include synonyms, homonyms and heteronyms. This broadening of meaning gives the student greater possibilities for interpreting intended meaning.

The third and final aspect of the vocabulary development process is depth. This is a much more subtle phase of the process than the first two and has its place at the higher levels only, after a firm foundation for it has been established in the two phases previously discussed. In this aspect we must consider vocabulary as it expresses mood, qualification, degree, implication, association and figurative meaning. This phase of language development, perhaps more than the others, builds an appreciation of the richness of our language. Figurative language should not be restricted to the reading of fairy tales, poetry and legends of childhood. We must not overlook the opportunities offered in the study of idioms, satire, irony, and nonliteral language as we work with students at the higher levels.

They need to feel the undetones, to sense the bias, the exaggerated, the playing up of one understanding and the minimizing of another, through clever choice of words. They need to recognize the emotional appeal, the sarcasm, the "goody-goody" overplay that one encounters so frequently in materials meant to propaganidize, to exert pressure, and by such means seek to control the thinking of the reader.

It would seem appropriate in summary to point out the following considerations that teachers at the college level must take note of in vocabulary development as a part of their reading programs.

1. At the college level it is not uncommon to find students at many levels in their vocabulary development. The instructional program for them must begin at the point of the development of student and must be largely an individual matter.

2. In order to insure the student against "word-learning" on purely a verbalistic level, the words must be outgrowths of actual or vicarious experiences of the student in language situations. Much doing, seeing, talking and listening, as well as reading, should be the stimulus for word study.

3. Materials used should be varied in type, content and difficulty. A good reading program develops versatility in the reader in order that he may broaden his reading experiences for his personal competence and enrichment.

4. Students should be helped to develop more wholesome attitudes about reading. They should be helped to see the value in being able to express themselves well and to interpret the ideas of others with clarity and understanding. Only through better use of their communicative abilities can they achieve their own fullest personal realization and at the same time develop complete harmony and understanding between themselves and others.

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TYPES OF READING PROGRAMS

Dr. William Eller, University of Oklahoma

For the past year the Executive Committee of the Southwest Reading Conference has been collecting, by means of questionnaires, information about reading improvement programs in colleges and universities throughout the South and Southwest. Examination of this data suggests that there may not be distinct types of reading programs as suggested by the above title; the examiner is more likely to be impressed by the similarities of these various programs than by their differences.

The college instructor faced with the task of establishing a reading program in his college usually starts with an inquiry into the methods and materials of existent programs in his vicinity. The typical questions asked have been used as a basis for the following summary of current practices.

1). Department in charge of reading program:

In almost all institutions the college reading courses are administered by one or a combination of these departments—Psychology, Education, Guidance, English (Communication Skills).

2). Nature of instructional staff:

The academic ranks of reading instructors is a matter that is determined by size of institution and the extent of development of the reading program. In most cases the pioneering work is done by a staff member with the rank of assistant professor or higher, but once the program is under way and especially after it has expanded to several times its original enrollment, assistants of lesser academic rank are often employed. Particularly in larger universities the bulk of the actual teaching is done by graduate assistants and others who have not attained professorial status.

3) Basis of student referrals:

This is one aspect in which there is considerable variation between schools. In some institutions the reading course is offered on an entirely voluntary basis, while in others, all the enrollees are selected by screening tests and are required to take the course just as much as they are required to take freshman English. Most colleges which require poor readers to take work in reading, also provide sections in which other students may enroll voluntarily. Voluntary enrollments result from referrals by advisors, professors, counselors,

friends and scholastic committees in fraternities and sororities. Some students enroll without specific referral because they are suspicious of their own reading abilities. Publicity in school newspapers stimulates this last type of enrollment.

4) Total hours of instruction:

The total amount of instructional time varies from a minimum of 10 or 12 hours to a virtually unlimited amount. It is impossible to calculate a maximum in a few colleges because students are permitted to repeat the reading courses until they feel that they have profited maximally. In the Southwest the model situation is the one in which two or three hours of instruction are offered each week for a semester.

5) Academic credit given:

Just three or four years ago very few institutions were allowing academic credit for reading improvement courses. Many college curriculum planners felt that students should take such a self-improvement course without credit on the assumption that they should have learned to read before entering college. The allowance of credit then, is partly a product of the spread of the philosophy that reading skills should be developed throughout the academic life of the student. A second and more realistic reason is student demand for credit, and limited student interest when no credit is given. Both interest and attendance seem to be helped when credit is offered.

6) Cost to Student:

Almost all colleges provide reading training at no extra cost to their own students but there are a very few which charge a small fee on the logic that since considerable expensive equipment is involved a fee is as justified as in other laboratory courses.

7) Equipment Used:

As would be expected, the equipment employed varies from college to college, but there are three types of mechanical aids predominating: (1) reading films: (2) reading rate accelerators: (3) tachistoscopic devices. A few large scale programs use mechanical equipment which is the product of local ingenuity.

8) Materials Used:

In addition to the slides needed for tachistoscopic presentation and the prose material used on the rate accelerators, most college reading instructors use workbook type exercises. Of the commercial workbooks, Improving Reading Ability by Stroud and Ammons, and The College Developmental Reading Manual by Wilking and Webster, are widely used.

9) Treatment of Severely Retarded Readers:

A very small percentage of college students are such inefficient readers that they cannot profit from the type of instruction given to the great bulk of their contemporaries, and in fact, would only be frustrated if continuously exposed to it. It is standard practice to deal with such problem cases either individually or in very small groups, and usually simple reading materials are provided.

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THE READING IMPROVEMENT PROGRAM AT SOUTHERN STATE COLLEGE

Dr. Rudolph Fiehler, Southern State College of Arkansas

The reading improvement program at Southern State College, Magnolia, Arkansas, has been developed on a limited budget and without the services of a full-time reading specialist. To launch the program, nine teaching hours a week, or three-fifths of one instructor's time, is being devoted to the work, making possible three classes, meeting three hours a week. During the present semester, a rountine is being worked out for the course, and it may be that in follwing semesters much of this routine can be carried on by a student assistant. If this is done, the director of the program will continue to meet the classes at least once a week.

The reading improvement program was adopted last September as an alternative to another plan for giving special attention to those freshmen whose performance in the entrance examinations appeared to indicate deficiencies in English. The other plan would have involved the organization of several sections of freshman English meeting five days a week rather than the usual three. It was felt that more could be accomplished through specific training in reading than through additional drill in grammar, and that an opportunity to earn an additional semester-hour of credit would be a wholesome incentive to the students.

Class size is limited to twelve, and thirty-four students have been enrolled, but it appears that with a little additional equipment the class size could be increased to fifteen or sixteen. Because only a relatively small proportion of the students could be accommodated, selection of students for the program has been left to the Dean of Students, who is also in charge of the freshman testing program. In general, those students have been referred who appear to be especially in need of the training, but as the plan and purpose of the reading laboratory has become known, other students with a more general interest have asked to be enrolled.

Mechanical equipment used in the reading laboratory comprises three pacers, two tachistoscopes used with two-by-two slide projects and sets of five, seven, and nine-digit number slides, a movie projector, and a set of reading films (State University of Iowa). Printed materials include workbooks (Improving Reading Ability, by Stroud and Ammons), books of exercises in comprehension (SRA Better Reading books and others), various library books on reading improvement, and the Reader's Digest. Various standardized tests have been used, and a good deal of mimeographed material has been developed for word attack.

The method of instruction has been to provide a variety of activities, and when possible to allow the students to choose their own. About one third of the time, or one hour a week is used for activities engaging the entire class, such as showing a reading film, discussing some general problem of reading improvement, or working on vocabulary development with the aid of the mimeographed materials. During the other two-thirds of the time, the students take turns in using the reading accelerators, the tachistoscopes, and the workbook materials.

Having the students take turns with the pacers and tachistoscopes has made it possible to get along with the minimum of equipment that has been available with the present budget. Some ingenuity is required to allow each student to have his turn with the mechanical aids, but the alteration of activity within the class encourages individual students to plan their own work and to spend more time in those areas which they feel will be of most help to them.

Most popular with the students at this time is word-attack activity. A beginning is made with lists of words difficult to pronounce, these words being listed along with more familiar similar words (e.g: impenetrable, with possible and penetrate). As a second step, groups of rhyming words are listed (e.g.: ridiculous, metriculous, fabulous, sedulous, incredulous). Thirdly, groups of words allied to Latin word-stems are studied (e.g.: centenially, centenary, centigrade centipege and percentage). Prefixes and suffixes are also given attention.

After twelve weeks of training, the 34 students enrolled have reported an average gain in reading speed of 170 words a minute, and it the consensus of the groups that the program has been well worth their while.

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READING IN THE COLLEGE CURRICULUM

Dr. Harrell E. Garrison, President, Northeastern State College of Oklahoma

To begin with, I wish to define the two terms reading and curriculum. Webster's New International Dictionary defines the term read as follows: "To guess; to think; to estimate; to suppose; to discern; to interpret; to discover the meaning of; to perform the act of reading words, characters, of the like; to peruse; or to go over with understanding, the words of a book or other like document. To utter aloud what is written; to give advice or counsel; to tell; to declare. To study by reading - to read between the lines, to infer something different from, or supplementary to, what is indicated by a literal reading; specifically, to detect the real, as distinguished from the apparent, meaning."

This term reading is so important in the field of education that the Dictionary of Education by Carter V. Good has given two and one-half pages to defining and analyzing it. (1). Perhaps we can reduce all of these meanings to the following statement about reading: Reading is the act of interpreting objects and symbols.

Among the many different meanins given to the term curriculum are the following: Webster describes curriculum as "a race course; a place for running. Also a course; particularly, a specified fixed course of study, as in a university." The Dictionary of Education describes curriculum as (1) "a systematic group of courses or sequence of subjects required for graduation or certification in a major field of study, for example, social studies curriculum, physical education curriculum; (2) a general overall plan of the content of specific materials of instruction that the school should offer the student by way of qualifying him for graduation or certification or for entrance into a professional or a vocational field; (3) a body of prescribed educative experiences under school supervision, designed to provide an individual with the best possible training and experience to fit him for the society of which he is a part or to qualify him for a trade or a profession."

According to the above definitions of the term curriculum, the curriculum of each student is made up of several different subjects, such as; geography, chemistry, history, sociology, algebra, etc. These subjects, or the subject matter which makes up the different curricula, are learned or mastered through the process of interpreting objects and/or symbols. In other words, subject matter is learned through the process of reading; thus, completing a curriculum is a matter of learning how to read the fields of knowledge involved. Knowing how to read the subject matter is not only important in completing a curriculum but is absolutely essential.

A great many, perhaps even a large majority, of our teachers attempt to teach the content of their subject-matter fields to their students without realizing that numbers and numbers of those students cannot read well enough to master the subject. It is also true that there are subject matter teachers who realize that students cannot read their subject matter but they have not had training in teaching people how to read therefore they

cannot teach their students how to read. These teachers generally consider themselves as subject matter teachers - not as teachers of people - teachers of human beings - capable of learning how to read if they are taught properly how to read. This holds true for high school teaching as well as college teaching.

These teachers, themselves, are quite familiar with the objects and symbols which make up the content of their chosen fields. They have learned how to read their subject matter, but they are ignorant of the fact that their students have difficulty or are not ready to read, and thus are unable to read their subject matter. In far too many cases, these teachers set up standards, based on their own knowledge and ability to read, which the students must attain or "fail the subject." Those who fail are then labeled as "dumb" or incapable of learning, or low in mental ability, or slow to catch on, or lacking in interest, and are stereotyped as failures. Because of this stereotype, they are forced to withdraw from school and are denied the opportunity of learning how to read which is the basic reason for their being in school in the first place - whether it be the first grade or college level.

There are students who make passing, and even excellent grades in their subjects because they have memorized the answers to questions which their teachers gave them. They have memorized, rather than learned to read, the symbols required for meeting standards set up by the instructor. Thus they graduate from the course not knowing how to read--not knowing how to interpret objects and symbols as far as this particular field of knowledge is concerned. This inability to read carries over into life following graduation or withdrawal from school. They learned to hate reading while in school because of the failure stigma being attached to all of their efforts to learn how to read. Of if they were taught to memorize rather than read while in school, they will hate reading when out of school. This point can be illustrated by the following anecdote found in Burton's Guidance of Learning Activities. Burton says,

> "I recall an anecdote from one of Kipling's tales of the struggles of a little boy learning how to read. He and his tutor wrestle with the problem long and valiantly, but progress is slow and halting. The process is an unhappy one for both participants. At last the day comes when the tutor says, 'You have learned how to read." The boy immediately throws down his book saying, 'Now, that I can read, I shall never read again.'" (2)

Somehow, I feel that college and high school teachers would all become reading teachers as well as subject matter teachers if they realized the importance of knowing how to read in the life of each individual. Knowing how to read is more important and essential to the individual after graduation than before because he lives most of his life following graduation. Knowing how to read and enjoying reading following graduation is essential to one's adjusting properly in society. This ability and desire are essential if democracy is to serve its purpose and if peace is to be found throughout the world. In the Saturday, May 17, 1952, issue of "School and Soceity", Robert M. Hutchins, former chancellor of the University of Chicago and now associate director of the Ford Foundation, was quoted as saying the following:

> "It may be that the world cannot be saved; but if it can be, it will be saved by the kind of education for adults that the public library is best equipped to give." (3)

High school and college students and graduates are not going to get this kind of education mentioned by Hutchins unless their high school and college teachers teach them how to read.

I recall reading a statement made by Bacon which was somewhat as follows: "Reading maketh a full man, conference a ready man, and writing an exact man." The lives of too many of our men and women are deprived of the fullness of which they are deserving, because their teachers did not teach them how to read.

How do I know that we have teachers in our high schools and colleges today who

do not heed the reading disabilities of their students? I am aware of this for several reasons. A few months ago, I was addressing a meeting of teachers. During the address, I stressed the need for high school teacher to be a reading teacher as well as a subject matter teacher. One of the general science teachers came to me following the address and stated that she did not have time to teach her boys and girls how to read general science. I asked her why she did not have time and she gave me the following categorical answer, "I must finish the textbook before the year is over." This teacher did not seem to realize that finishing the textbook was a worthless procedure for those pupils who were unable to read that textbook—and it is possible that three-fourths of her students did not know how to read the textbook.

The very fact that so many of our students are dropping out of high school and college is sufficient evidence that they are not being taught how to read. People enjoy real learning situations. Lack of reading ability causes the potential learning situation in school to be a tedious, tiresome and uninteresting process to the youngster and he ultimately finds every excuse possible for dropping out of school.

The low level and small amount of reading done today by the American public in general is a most convincing indictment of our methods of teaching reading or lack of teaching of reading on the part of teachers at all instructional levels. The curriculum especially of of the high school and college student, in numerous cases, in fact, in far too many cases, does not include instruction in the techniques of learning how to read.

Not long ago, a college instructor said to me that it was not a part of his duty to teach his students how to read. He stated that they should have been taught how to read before they reached him. I would venture to say that eighty percent of the high school and college teachers throughout the nation are of the same opinion today. This means to be rather common thinking among our secondary and college teachers.

A few months ago, another college professor said to me that he felt we should discontinue giving so much time to the average and below average student. He suggested that we weren't giving nearly enough time to the highly intelligent student. It was his opinion that we were thwarting the intellectual growth of the so called "bright" student by not giving most of our time to "feeding" his intelligence. This professor was unable to define intelligence in a satisfactory manner and was unable to suggest a satisfactory method of determining which students were highly educated and which were not. When he was questioned as to the method he would use in determining which students were in the so called "upper ten percent", he remarked that he would administer an intelligence test to them and use the resulting score as a determinant of their mental capabilities. He was questioned as to whether or not he had ever administered an intelligence test himself and as to whether or not he had had much experience in learning to interpreting the scores of an intelligence test. His remark was that he had not had much direct experience in learning to interpret these tests but that he was willing to take the word of the psychologists. He continued by stating that the psychologists generally knew what they were doing and that they recommended using intelligence tests to determine intelligence.

I could continue reporting statements made by subject matter teachers which indicated their ignorance concerning the true nature of learning - which indicated their inability to use proper methods of teaching because they had never had experience in diagnosing learning difficulties in a clinical situation. In other words, they had never had experience in studying only one individual for a sufficient length of time to determine the causes for his disabilities and to determine methods of remediation. For instance, a high school teacher of algebra once said that he did not concern himself with those students who get into his classes and cannot meet the standards he sets up for them. He either fails them or gives them very low grades and

concentrates his attention on those students who are able to comprehend. A suggestion to this teacher that his slow students may not be ready for the standards he set and that he might have to slow down the pace for some of them until they are ready seemed to infuriate him. His apparent infuriation was due to his feeling that adjusting the rate of teaching to the level of readiness or abilities among his students was only a matter of lowering standards and making a snap course out of a course which, as he expressed it, "really required brains and intelligence" to make a passing grade. Of course, he was disturbed in the least when someone suggested that a quite a number of his students were doomed to failure the moment they enrolled in the course and it was not the fault of the students because they were forced into the course.

In The Guidance of Learning Activities, Mr. Burton describes this type of method of teaching as follows:

> "Traditional school practice has been to treat the content of books and of courses as the learning product to be mastered. Small pieces of this content, "lessons," were studied, that is memorized to be recited to the teacher. This misconception of learning process and outcome has dominated the theory and practice of untold thousands of teachers of the "text-coverer" type. Laymen have accepted the view as correct and as based on centuries of practice. The interesting and significant thing is that this accepted view is not only incorrect, but represents a degeneraton over a period of centuries from a far better concept." (4)

We could report at length the inability of a large number of our present day college teachers to make the classroom situation interesting and meaningful to all students under their supervision and their lack of knowledge and experience in correcting the situation. These college teachers, and we can not exclude high school teachers from this category, are satisfied to "teach as they have been taught." They make the same errors their predecessors made in teaching as far as recognizing individual abilities among students is concerned and adjusting the learning situation accordingly. Closely associated with their inability or unwillingness to recognize the individual differences is their lack of knowledge concerning the tremendous importance of students knowing how to read the subject matter of a given field before they will be able to achieve satisfactory progress in that field. We continue to have freshmen in large numbers throughout the nation who either drop out of college during the freshman year or are dismissed from school and the reason is mainly a matter of not knowing how to read. They make poor grades during the first six or nine weeks and become discouraged with school and the learning process. The freshmen do not know why except that all the work they are given is above their ability to read at present. High school teachers are the cause of this situation because they attempt to teach according to their own standards rather than according to the ability each student has.

All over the nation, people are beginning to realize that lack of reading ability is mainly the cause for most academic maladjustments in college. In order to remedy this situation, a great number of colleges are developing some sort of reading improvement programs for their students. These programs vary in form from informal efforts on the part of a few faculty members to the more highly organized reading improvement program which embodies a reading clinic or laboratory with a competent reading specialist as director to whom students may be referred for special help.

But we have not found the most satisfying answer yet to our reading problems in the high schools and colleges of the nation, and we will not find the answer until every teacher who teaches in high school and college considers herself or himself as a reading teacher as well as a subject matter teacher. This is where the most important responsibility of the reading clinic director or reading teacher or specialist rests. In other words what can the reading specialist do to bring about an awareness on the part of every high

school and college teacher that the teaching situation will become a learning situation for all students when each teacher is able to diagnose the reading habits of all students and adjust his teaching methods to the results found in the diagnosis? It is not possible for the reading specialist to take care of all reading problems himself - there are too many cases involved and colleges and high schools do not have enough money to employ a sufficient number of specialists, even if there were enough available and if this were the best plan.

The reading specialist in high school and college has a big teacher relations job to perform - perhaps this is the gravest responsibility of the specialist. It is important that the specialist know how to thoroughly diagnose individuals in order to determine causes for reading disabilities. It is highly essential that the specialist know how to set up a developmental reading program for each individual after causes have been ascertained. But the specialist is only one person and can work with only a few individuals as individuals or in small groups. We need to improve the reading ability of all who are lacking in that ability and it will take the cooperation of all teachers to accomplish this Herculean task.

In order to accomplish this task, the reading specialist must make sure that he is accepted by other members of the faculty. He must be certain that he has personality characteristics and traits which are desirable in dealing with people. He must be able to discuss educational philosophy with the other members of the faculty and with the administration without becoming emotionally upset: without assuming a dictatorial attitude. In other words, the reading specialist must win for himself a wholesome and "warm" spot in the hearts and thinking of the teachers. The attitude of the reading specialist; the manner in which he organizes his program; the methods he uses in getting administrative support for his program; his own knowledge of reading problems involved in learning the content of the different subject matter fields; the training and variety of experiences of the reading specialist—all play a significant part in his being able to bring about an awareness of reading difficulties which must be overcome before learning will take place in the mind of the students. The reading specialist must be recognized as a highly successful teacher himself. His success must be recognized by the students as well as by the other members of the faculty.

If reading specialists are to be successful in properly influencing teachers to improve their methods of teaching and recognize the significance of reading ability, they will exemplify, among others, the following traits: honesty and intelligence; fairness and friendliness; an understanding of the individual; a sound educational philosophy; tolerance; a sense of humor; flexibility of method; good speaking voice. A most important concept which every reading teacher must acquire is the ability to recognize that one's own mastery is not shared by those in the position of learners.

Some of these traits need further emphasis and comment at this time; for instance, recognizing and having an understanding of the individual. Reading specialists must stress the absolute necessity of all teachers recognizing individual differences among students as far as reading and learning is concerned. It is not possible for all nor for any two students to read in any one field with the same clarity and understanding and at the same speed. Teachers must recognize that an individual's speaking and reading vocabulary is based on his experiences and background. In light of this, generally, a student coming from an environment which has been saturated with information and knowledge about the sciences; such as, chemistry, physics, astronomy, etc., will have a large vocabulary in the science fields and perhaps will be an excellent reader in these fields. This identical individual may have had very little contact with knowledge and information about music and thus his vocabulary in music would be quite low. It would take him a much longer time to develop meaningful concepts of terms like clefs, staff, scale, octave, fortissimo, mezzo, pianissimo,

measures, time, and pitch as they pertain to music, than to develop meaningful concepts of scientific terms, such as, axis, rotation, symmetrical, chlorophyll, oxidation, etc.

WORDS!! Of the 400,000 words in the English language, the working journalist is accredited with use of the largest number, something less than 20,000. Clergymen, lawyers, and doctors use an average of about 10,000 words. Skilled workers of ordinary education know about 5,000, farm laborers about 1,600. The sciences and professions have large numbers of words the layman never hears. For instance, medical men and women must know the names of 433 muscles, 193 veins, 707 arteries, 500 pigments, 295 poisons, 190 tumors, 700 tests, over 200 diseases, and over 1,300 bacteria.

Yet with all these words, think of the people who still have trouble expressing themselves. Think of the people who constantly wonder what they are about. (7)

A Frenchman was relating his experiences in studying the Englih langauge. He said, "When I first discovered that if I was quick, I was fast; if I spent too freely, I was fast; and that not to eat was to fast, I was discouraged. But when I came across the sentence, 'The first one won one-dollar prize', I gave up trying."

Words!! They are important - more important to day than at any other time in the history of civilization. How important are words? I dare you to have a single thought without the use words. It is not possible to think without words being involved. There are numbers and numbers of words used today that were not used - that were not even needed - fifty or one hundred years ago.

An individual who died one hundred years ago, would be emotionally, mentally socially, and physically confused and frustrated if he were placed in today's world with only a vocabulary typical of his century or generation. He would not be able to think understandingly because of his vocabulary being inadequate. He could not read, speak, nor write understandingly because of his meager vocabulary which wa s entirely adequate a century or generation ago. He would be an excellent case for the teacher of reading.

The reading teacher of today has a responsibility - a task to perform - which has not been equalled in the history of teaching reading. One cannot think of words today without thinking of the language art, READING. More thinking develops larger vocabularies, and generally, the larger the vocabulary the more thinking that is done. Reading is the language art which develops larger vocabularies and thus brings about more thinking. In light of this, is there any doubt as to the responsibility placed on the teacher of reading today? That responsibility is not great only to the beginning teacher; that is, the teacher of beginning readers, but it is a great at all other levels of teaching because of the complexities of life today.

I feel that most teachers realize that their greatest problem in reading is to find ways of giving boys and girls a vocabulary sufficient to their needs.

Our aim should be to get students to read as efficiently as possible. This aim cannot possibly be accomplished until all teachers adjust their teaching methods to fit the needs of each individual. This statement is substantiated by Lewis M. Terman in the following quotation: "If educational methods were more intelligently adapted to the idiosyncracies of the individual child, all children would achieve up to their mental age level in all the school subjects.(8).

In addition to adjusting the teaching method to individual differences, the reading specialist and other faculty members must know the factors involved in causing individual differences which result in poor reading on the part of the student. I don't mean by this that all faculty members must be able to diagnose each student although it would be well if all did have this knowledge. The faculty members should be able to detect physical difficulties which bring on reading discrimination; speech defects; factors pertaining to the brain such as mixed dominance, defective neurological coordination, and hand dominance forcibly changed.

The faculty member should know that there are psychological factors which enter into the reading disability picture,

such as, mental immaturity; narrow span of recognition, relationship and association of ideas; failure to recognize words; inability to analyze words; failure to use phonetic principles; guessing at words; lack of judgment, reasoning ability, and inability to make correct references; and lack of intellectual interest. The faculty member should know how to detech inefficient work and study habits such as, ignoring punctuation; word-by-word reading; incorrect phrasing; lack of emphasis on meaning; substituting words; repeating words too often; failure to note prefixes and suffixes; lacking ability to use diacritical marks; position of book or material; and position of the reader himself. There are a number of personality traits and mannerisms which the faculty member should recotnize as having a definite effect on one's reading ability. Some of these are: over-dependence on teachers; lack of aggressiveness, negativistic attitude; preference shown for another activity which yields more immediate satisfaction; emotional immaturity; nervous excitability; excessive daydreaming; feelings of insecurity in home and school situations; attitude toward books; egotism; shyness in speaking or in attempting class activities; reaction to prolonged failure; and conflict with the teacher, or clash of personalities between teacher and pupil.

Factors concerning educational immaturity should be easily recognizable to faculty members. Some of these are: language immaturity; lack of general social experience; lack of readiness for beginning reading at any level and in any field; limited background or inadequate experience; meager vocabulary; poor emunciation; inability to associate life activities with printed symbols; no explanation for transition for familiar to the unfamiliar; and failure to realize that reading is essential to enjoy life.

Mention already has been made of inadequate teaching teachniques which should be recognized by faculty members and avoided. Some additional ones are as follows: lack of proper materials; lack of stimulating reading environment; too much drill on words out of context; no provision for drill of any kind; failure to use phonics widely; overstress on silent and/or oral reading; over-stress on one skill; purposeless reading; not providing reading materials of different levels of difficulty; failure to check on development of basic skills; glare produced by glossy paper; lack of a variety of materials for each stage of reading; sequence of reading materials not carefully graded; vocabulary burden and rate of introduction of new words too rapid; failure to create interest in material to be immediately read; and too much emphasis on comparing one student with another.

It is the responsibility of the reading specialist to encourage faculty members to look for any of these factors which cause poor reading and to advise with the specialist as to what procedure to use in correcting them. The faculty member should know what can be done within the classroom, certainly he should know to refer the student to the reading specialist for complete diagnosis and therapy.

The role of the reading speciliast in high school and college is vitally important in our endeavors to educate youth today. He or she must be a leader in helping the administration and faculty recognize the relationship of reading to the curriculum; he must lead his coworkers into realizing that poor reading ability is generally the cause for failure and that poor reading ability is not always the fault of the student but many times is due to poor teaching methods; he must lead in helping all faculty members to be aware constantly of individual differences and to teach accordingly; he must lead in familiarzing faculty members with the many causes of reading disabilities in order that they can be detected among their students; and last, but certainly not least in importance, the reading specialist should organize his

program in such a manner that all faculty members will know the purpose and place of all equipment and materials used in the reading laboratory program, such as, the telebinocular, ophthalmograph, audiometer, tachistoscope, voice recording machines, reading rate pacing devices, timed reading exercise booklets, reading tests, vocabulary tests, dominance tests, mental ability tests, personality tests, aptitude tests, and others.

The challenge today is to win this battle we now find ourselves engaged in, namely, this battle of subject matter versus individual differences: curriculum versus reading; group standards versus individual standards; forced reading to accomplish an extrinsic goal versus enjoyable reading to increase and enlarge meaningful concepts.

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AN ALL-SCHOOL READING PROGRAM IN HIGH SCHOOLS

Dr. Earl C. Denney, Tulsa Public Schools

The Tulsa Public Schools have responded in an effective way in emphasizing instruction in reading at the high school level.

The program had its origin in the expressed concern of many secondary school teachers. In responding to the question "What three problems give you most concern?" teachers mentioned the problem of reading most frequently.

After considerable discussion, a committee of teachers was appointed to survey the problem, to locate resources and materials, and if necessary, to prepare materials for in-service study by teachers. In a summer workshop in 1947 this committee prepared a teacher's guide, Promoting Growth in Reading: A Teacher's Guide for Use in Secondary Schools.

The Committee recognized the need with respect to reading in high schools as three fold:

1. Recognizing among the "poor readers" those who read poorly because they are slow learners, and adapting instruction and materials to the abilities of those students;

2. Recognizing among "poor readers" those who because of some physical, psychological, or emotional block fail to r read up to expectancy, and providing the necessary diagnostic and remedial measures for correction;

3. Providing an all-school program which emphasizes the continuous growth of all students in the skills and attitudes of mature, critical reading.

A teacher-member of this committee was placed on special assignment the following year to work with other teachers on the problem.

The helping teacher on special assignment began by working only in those schools and with those teachers who expressed a desire for help. In some schools the entire faculty worked on the problem, because the program was interpreted as being the responsibility fo all

teachers and not that of the English teacher alone. In other schools the teachers of one "block" (English, social studies, science) studied together the problem in their common "free" or conference period. In other several "blocks" were concerned with the problem and in one school all sophomore "block" teachers worked together with the sophomore class director who was a mathematics teacher.

In no school was the issue forced, but by the end of the year all secondary schools, to varying degrees, were participating. At the close of the first year, the helping teacher in response to continued requests for techniques and procedures invited voluntary contributions. One hundred thirty teachers submitted voluntary suggestions and helps which were organized and issued as a supplement to Promoting Growth in Reading.

Two two-week's summer conferences on reading in the high school have been held locally with reading specialists brought in. Voluntary attendance of our teachers in both conferences has been good.

EVALUATION:

1. The spread of interest in the problem is, perhaps, at this time the best evidence that something is happening to students. Instruments for measuring some of the values have not been devised, but work on this problem continues.

2. As a problem which cut across all subject lines it has brought teachers together into closer cooperation in meeting needs of boys and girls.

3. With respect to the problem of the slow learner the attitude of teachers changed markedly from one of almost resentment in some cases to a sympathetic acceptance and sincere concern toward adaptation of instruction to their level. Teachers have shown much interest in the finding of suitable materials and the pooling of such materials.

Lists of these materials have been prepared as a result of the sharing.

4. Classes for remedial readers have been organized in some schools and generally the use of the Reading Clinic for high school students have increased.

5. From an original concern with the poor reader, there has been a marked growth in concern for the needs of the average and superior reader.

6. From the emphasis on reading interest has grown in other aspects of language arts and their interrelationships in communication.

SOME PROCEDURES IN DEVELOPMENTAL READING IN COLLEGE

Mr. Oscar S. Causey, Texas Christian University

It is unnecessary to make an issue of the importance of effective procedures in a course designed to improve reading ability of college students. Whether a best set of procedures exists at this time is debatable. Methods, techniques and procedures used successfully by an instructor in one situation might not be highly successful in the hands of another in a different situation. But the necessity for using specific plans remains, whatever the teaching situation.

Some degree of success has been attained by use of the outline given below.

I. General Objectives: Improving reading ability of college students.

Specific Objectives. 1. Improvement of comprehension, (a) grasping significance of passage (b) finding implication, (c) justifying opinions, (d) noting details (e) classification of ideas, (f) comparison of ideas, (g) generalization. 2. Increasing rate of comprehension. 3. Enlargement of vocabulary. 4. Reading in

thought units. 5. Skimming. 6. Directed reading.

After the students are given an explanation of the above objectives, procedures are introduced that are designed to provide individual improvement in the area of each objective. Each student checks frequently his progress. (See Daily Work Record on page 30 for illustration.

II. Each of the topics below (underscored) is presented by lecture and is followed by discussion.

Psychological Aspects of Reading. 1. Reading as thinking. 2. Emotional experiences. 3. Reading for information. 4. Recreational reading. 5. Interpretation as it related to experience.

How We Learn. (1)(2). 1. Some basic principles of learning. 2. Application of the principles to improvement of reading.

Reading as a Composite Skill. 1. Identification of fifteen reading skills. 2. The six skills to be developed in this course. 3. Integration of the six skills. 4. Individual reading patterns.

Developing Skills. (3)(4). 1. Nuero-muscular skills (an illustrative approach). 2. Mental skills. 3. Some principles of learning in use in improvement of reading ability: (a) readiness (b) frequency (c) recency. 4. Use of principles of learning in improvement of reading ability.

The Perceptions and Reading. (5) 1. Identification of six perceptions. 2. Auditory perception in relation to reading. 3. Visual perception and reading in thought units.

Sustained Attention. (6)(7)(8)(9)(10). 1. Importance of sustained attention. 2. External stimuli. 3. Inner wayward thoughts. 4. Recent emotional experiences.

Getting Acquainted With a Book. (11)(12). 1. The title. Implication of the title. 2. The author. The author's purpose in writing the book. 3. The preface. 4. Table of contents. 5. (a) Has the book an index? A Glossary? Biblography? Footnotes? Maps? Charts? Tables? Pictures? (b) What use is made of each of these parts in (a)? 6. Format. Type. Different sizes of types. Why different sizes of type. 7. Word analysis. One-syllable words. Three-syllable words. Words with more than three syllables. 8. Length of sentences - short, long, very long, varied lengths. 9. Length of chapters. 10. Documentary abbreviations. Use of documented references.

Using a Book. (13)(14)(15). 1. Statement of purpose in reading a book. 2. Skimming. 3. Expected rate of reading - high rate, average rate, slow rate, very slow rate. 4. Will purpose in reading book be fulfilled by reading the book once twice, re-reading some chapters? 5. Taking notes on the book. 6. Reading for making a book report.

Procedures. 1. The reading ability of each student is determined in terms of comprehension, rate of comprehension and vocabulary. 2. The initial reading score of each student is found by the equation Reading Score equals rate times comprehension divided by one hundred. 3. Initial reading scores and vocabulary scores are given to each student at the beginning of the course. 4. Materials to be used in the course are discussed. The students examine the materials. 5. Instructions are given in the use of laboratory equipment. 6. The students learn their daily procedures. (In devising some of the daily procedures liberties have been taken with use of the "Morrison Mastery Technique" in changing it from "test, teach, test, modify the procedure, teach and test to point of mastery," to "test yourself, learn, test yourself, confer with your teacher, learn, test yourself, learn to point of maximum improvement.") 7. The objectives of the course mentioned above are given to the students. 8. Students determine each day the percent gain or loss in comprehension and rate of comprehension. 9. Progress reports are made frequently. (See Progress Report on page 30 .) 10. A "success pattern" for the course is given to the students. 11. Vocabulary tests are given five times each semester. 12. Work outside of class includes three areas: (a) vocabulary building, (b) improvement in comprehension and (c) assignments in use of magazines and newspapers. Assignments in (a) and (b) are made on a weekly schedule. The following workbooks are used in the course: "Improving Reading Ability by Stroud and Ammons, Concerning Words, by J. E. Norwood, Reading and Vocabulary Development, by W.

DAILY WORK RECORD

Name _____ Date _____

R EADING PACER

Title of Book _____

_____

Setting of pacer _____

	With Pacer	Without Pacer
Pages read	_____	_____
Reading rate	_____	_____
Comprehension	_____	_____
	_____	_____
	_____	_____
	_____	_____
	_____	_____
Average	_____	_____
Present reading score	_____	_____
Initial reading score	_____	_____
Percent gain	_____	

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PROGRESS REPORT

1. Name _____ Date _____
2. Name of book _____
3. Starting time _____
4. Finishing time _____
5. Reading time _____
6. Number of words read _____
7. Reading rate in words per minute _____
8. Comprehension _____
9. Reading score _____
10. Initial reading score _____
11. Percent gain _____

O. Weber, and Reading Laboratory Workbook by Oscar S. Causey.

The chief emphasis in the course is placed upon improvement of comprehension. Approximately two thousand questions have been prepared on books which the students read in the laboratory. Some of the questions are used daily by the students in order to discover the extent of comprehension of material read. In order to provide, at least in part, for variation of interest of reading, fifteen different books have been provided as a part of the laboratory equipment. There are three hundred copies of the fifteen different books. An ample supply of selected magazines is also available.

III. Evaluation. At the end of the semester evaluation of achievement is made on the basis of progress made by each student. The measures are objective. Progress made toward four of the stated objectives is the basis of measurement—comprehension, rate of comprehension, reading in thought units and vocabulary. Two types of material are used in the final evaluation - (a) standardized tests, (b) teacher-made objective tests.

IV. Outcomes. In order to discover some of the subjective outcomes three approaches to students have been made: (a) group discussion, (b) individual conferences, (c) written evaluation of the course with or without student signatures. In making the third approach students are earnestly requested to make both favorable and adverse criticisms. Among the important outcomes are changed attitudes and feelings that defy accurate measurement. The last two approaches are more fruitful. Some adverse criticisms have been valuable in further course planning.

Among important outcomes in the area of feelings and attitudes were the following: a better attitude toward learning; the feeling of satisfaction that accompanies achievement; the feeling that follows success; satisfaction that accompanies success; satisfaction that comes with smooth rhythmic reading; and increased desire to learn; more self respect because of better preparation of class assignments; preparation of class assignments in shorter time; a better attitude toward use of the library. Reports showing improved attitudes toward use of books were particularly pleasing.

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EVALUATION OF READING FILMS

Dr. William Eller, University of Oklahoma

Since reading films are designed to aid in the improvement of reading rate, an evaluation of such films might well begin with a consideration of the reasons for slow reading by high school and college students and by adults. Buswell has indicated that when adults read slowly and inefficiently - and most adults do - it is usually because of one or more of the following factors: (1) Short span of recognition, (2) Unnecessarily long fixation time, (3) Numerous regressive movements, (4) Sub-vocalization and (5) Limited vocabulary.

Of these five factors, the first four are useful in a consideration of the values of reading films. While extent of vocabulary is a very important influence upon rate of reading, it is a factor of a different nature than the other four, since it involves so much less "habit" and so much more higher mental process. Because it is not a matter of habit, vocabulary size is not much affected directly by reading training films, which are planned to aid in the substitution of good reading habits for bad. However, vocabulary-building exercises which employ other materials are rightfully included as a part of many high school and college reading improvement programs. (See "Vocabulary Building by Loris DeFigh, page 13.)

There are two batteries of reading films in wide use in speed reading training today, the Harvard Films and the Iowa Films, both of which present stories arranged in phrases which appear on the screen for brief intervals of less than a second. The phrases are presented in typical reading fashion in that they proceed across the screen from left to right and down the screen from top to bottom. Only one phrase of the story is distinctly visible at any given moment. Since the stories are presented in phrases instead of individual words, and since each phrase is on the screen for such a short time, the reader is more or less forced to read by phrases instead of word-by-word. After a certain amount of this practice, the typical student has markedly lengthened his span of recognition, thus overcoming Buswell's first factor. The second factor is dealt with at the same time, because the phrases are on the screen for such short intervals that long fixation times are impossible. Because only one phrase is distinctly visible at a time, and because a phrase disappears after its brief appearance, regressive movements are futile. Thus Buswell's third cause of slow reading is treated by the films, as regressive movements go unrewarded and thus tend to disappear.

Reading films also tend to get rid of the fourth listed cause of slow reading, sub-vocalization, but in a less direct manner. A reader who sub-vocalizes says each word to himself as he reads it, even though he may not move his lips. It is obvious that this places a definite limitation on his rate of reading, because he can not read silently much faster than he can talk.

When reading films are employed to speed reading, each film is usually presented at a slightly faster speed than the film which was used during the preceding training period. For example, if a film story was presented at 290 words per minute on Monday, the story rate for Wednesday might be 315 words per minute. As the rate of presentation increases, eventually a speed is reached which prohibits sub-vocalization simply because the reader cannot "talk" fast enough to say the words to himself and still keep up with the film.

Many reading specialists feel that the greatest value of reading films, or any mechanical device, is motivational. Certainly films can provide a great deal of motivation, although if the stories are dull or of an inappropriate level of difficulty, the effect might be negative.

After the foregoing consideration of the rationale of reading films it is appropriate to consider the question: How effective are reading films in actual practice; specifically, what are their advantages and limitations?

Most college reading instructors who have employed films as a segment of their programs are satisfied that the films are valuable. Surveys of students enrolled in

reading improvement courses at both Texas A. and M. and Oklahoma University have indicated that they also consider the films worthwhile. When asked to name the materials and instruments most helpful to them, the students ranked reading films second, just slightly below reading rate accelerators.

The most obvious limitation of reading films is their lack of flexibility for adaptation to individual differences. Usually the films are used with groups of students; even when an attempt is made to group the students homogeneously according to reading rate, the story is often presented too rapidly for some readers and too slowly for others. This problem is not always as great as it seems to be for the slow readers because a few of them need to be pushed. These same few slow readers do not seem to have enough self-discipline to profit maximally from individual reading devices such as reading accelerators and small tachistoscopes. For such readers the day by day acceleration of the film presentatin can be advantageous.

As the rate at which the stories are presented increases some students find they are unable to keep up with the group. The slower students can be accomodated in various ways. If they cannot be separated from the rest of the group, the increase in speed can be made less difficult for them if the new film to be presented during the class period is preceded by one or two of the films already viewed during previous sessions. If the slow readers can be separated, it often proves helpful if one or two films of similar speed can be shown during two or three consecutive class periods before any faster films are employed. Also, most motion picture projectors have some speed control, and it is often possible to regulate the speed of story presentation by simply controlling the projector speed.

Some of the more rapid readers complain that they can read 600 words per minute from standard printed text more easily than they can read 450 words per minute from a film. They find that the film phrases are too short or that the fixation times are too long for comfortable and efficient reading. Some instructors feel that it is desirable to use reading films only until students can read 400 words per mimute or slightly faster. After this speed is attained, the films are abandoned in favor of other materials.

A few students indicate that they are bothered by the irregularity of increases in speed from film to film. Among the Iowa Films the gain in speed from one day to the next may be only 5 words per mimute, but the following day, it may be 25 words per mimute. It seems doubtful that this inequality of speed gain is very serious. It is more likely that the student difficulties arise from varying degrees of interest in the context, varying difficulty of the stories and fluctuating conditions of projection. Often when two films are shown during the same class period, some students insist that the slower film actually presented its story faster.

Two common complaints about reading films are not serious enough to provoke worry. The first of these is that reading from films is highly artificial. This would be a legitimate complaint excpet for the fact that the distributors of both the Iowa and Harvard Films have provided supplementary reading materials which are to be used in conjunction with the films. When these particular materials are not used, nearly all instructors provide some other typical reading selections. Occasionally someone who has only limited experience with reading films is perturbed by what he calls "the unrealistic arrangement of the phrases". Sometimes a single phrase will contain the end of one sentence and the beginning of the next. The experienced instructor is not bothered by this and the students do not complain about it because both instructor and student have discovered that rhythmic reading is more important than neatly arranged phrases.

In summary, there seems to be a little doubt that reading films contribute materially to the total reading program, but like most types of equipment, they should be used in comunction with other techniques rather than by themselves.

DEVELOPMENTAL READING COURSE AT CONVAIR

Mr. R. A. Wagner, Publicity Committee, Convair

The industrial management man must read a large volume of increasingly complex material. He must depend, to a large extent, upon written material for the information necessary to the effective direction of his job.

Unfortunately, much of the reading matter that comes his way contains a large amount of non-essential material. However, he cannot assume the contents of any item. He must be able to select and thoroughly understand that which is important, without permitting the reading process to interfere with the many other important demands made upon his time.

The Convair Management Club, Fort Worth Division, recognizing the importance of reading rapidly and understanding clearly, recently sponsored a course in developmental reading. The course, designed to increase speed of comprehension, was one of a number of courses which are offered through Texas Christian University under the sponsorship of the Mangement Club. It ran from June 5th to August 25th and carried three semester hours credit. It was taught by Professor Oscar S. Causey, Director of the Reading Laboratory of Texas Christian University. Professor Causey, an outstanding authority in the field of developmental reading, is also Chairman of the Executive Committee of the Southwest Reading Conference for colleges and universities.

The Management Club offered ten scholarships, covering the tuition costs, to the ten students making the highest reading scores. The enrollees who won the scholarships made an average gain of 130% in reading ability. That is, they doubled their reading scores and threw in an extra 30% for good measure. The percentile gain was determined by comparing the initial reading scores with final reading scores with use of the formula, Reading Score equals Rate times the Comprehension divided by one hundred.

The average gain for all trainees was 98.3% . The lowest average gain made by an individual was 28%. The greatest average gain by an individual was 214%.

Reading Laboratory facilities and procedures were used throughout the training period. The tachistoscope was used by each person to develop quickness of perception and to increase the number of words perceived in a single "thought group." The tachistoscope is a slide projector with a time-controll attachment that limits the time of an exposure on the screen. The time range of the exposure is from one second to one hundreth of a second. By practice the student reduces the time required to perceive the meaning of the group of words. For example, a student who perceives a phrase or sentence from three to six words in one second in the initial period of training learns by practice to perceive the same in one fiftieth or one hundreth of a second. He develops the habit of quick perception.

Each student used a reading pacer to develop continuity in quickness of perception. A reading pacer is a motorized gadget that moves a cover board downward over the page obscuring the lines from view of the reader as it moves. The rate at which the cover board moves is controlled by moving an adjustment device on the instrument. The student tries constantly to increase the rate at which the cover board obscures the page. Carefully prepared procedures are followed for checking comprehension several times each day.

One of the basic aims of such a course is to speed up thinking. More and more, rapid and accurate thinking is demanded of the management man. Since reading is a form of thinking, the course was directed toward bringing the rate of reading comprehension closer to the rate of thinking. It is generally accepted that practice in faster reading promotes the habit of faster thinking. Without exception, those taking the course were able to bring the rate of reading closer to the rate of thinking.

The fastest reading rate attained was 664 words per minute with a comprehension score of 87%. Three other students reached a top speed of more than 600 words per mimute. The top reading rate for all students was 440 words per minute. This compares very favorably with the average

beginning top rate of 225 words per minute.

Twenty-seven percent of the enrollees developed "supersonic reading rates". This is a rate of comprehension high enough to quiet the vocal chords, bring them to rest, and remove one of the chief obstacles to faster comprehension of the printed page. The vast majority of people tend to "say silently" the words read. This causes the vocal chords to be in constant motion in an attempt to produce orally the words being read. It puts the brakes on the mind of the readers. Since there is a limit to the rate at which the vocal chords can move, they are overcome and their obstructive action ceases when the reading rate reaches approximately 450 words per minute. After this rate is acquired, reading becomes easier and comprehension becomes greater.

The enrollees maintained a high level of interest throughout. Of the thirty-three initially enrolled only four dropped, three of them for reasong beyond their control. Percentage of attendance was very high, with all absences being made up.

A big majority of the students believe that the increase in reading ability has definitely carried over into the job. They feel that they are able to discharge their responsibility more surely because they can acquire the necessary information much more readily and accurately.

This experiment at Convair seems to indicate that training in rapid reading may eventually be offered in industry generally as a substantial means of making one of the difficult phases of management's job simpler. Training in rapid reading can make a positive contribution to raising the level of the management man's effectiveness.

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ROSTER OF REPRESENTATIVES IN ATTENDANCE AT THE ANNUAL MEETING

D ecember 12, 13, 1952.

ARKANSAS

Fiehler, Dr. Rudolph, Southern State College, Magnolia, Arkansas.
Russell, Mrs. Fleta, Henderson State College, Arkadelphia.
Simmons, Miss Erma, Ouachita College, Arkadelphia.

KANSAS

Hinton, Miss Evelyn A., University of Wichita, Wichita.
Miller, Mrs. Marion, University of Wichita, Wichita.

LOUISIANA

Hatcher, Miss Amelia D., Louisiana State University, Baton Rouge.
McElwee, Dr. Tandy W., Louisiana State University, Baton Rouge.
Miller, Miss Annie Laurie, Louisiana State University, Baton Rouge.

MISSISSIPPI

Staiger, Dr. Ralph, Mississippi Southern University, Hattiesburg.

NEW MEXICO

Chievitz, Mrs. G. L., University of New Mexico, Albuquerque.
Hense, Mr. James, New Mexico Military Institute, Roswell.
Walters, Miss Helen, Highlands University, Las Vegas.

OKLAHOMA

DeFigh, Miss Loris, University of Tulsa, Tulsa.
Denney, Dr. Earl C., Tulsa Public Schools, Tulsa.
Eller, Dr. William, University of Oklahoma, Norman.
Garrison, Dr. Harrell E., Northeastern State College, Tahlequah.
Harris, Mr. Louie E., Oklahoma College for Women, Chickasha.
Sommerfeld, Dr. Roy E., Oklahoma A. and M., Stillwater.
Watson, Mr. S. J., Connors State College, Warner.

TEXAS

Allen, Dr. Corrie, Texas Christian University, Fort Worth.
Angelica, Mother, Our Lady of the Lake College, San Antonio.
Baldwin, Mr. J. R., Lee College, Baytown.
Barrus, Dr. Paul W., East Texas State Teachers College, Commerce.
Beamer, Dr. George, North Texas State College, Denton.
Bliesmer, Dr. Emery, The University of Texas., Austin.
Briggs, Dr. F. Allen, Hardin-Simmons University, Abilene.
Burkett, Miss Grace, Texas Wesleyan College, Fort Worth.
Burton, Dr. Jack, Cleburne.
Carroll, Dr. Hazle Horn, Southern Methodist University, Dallas.
Causey, Mr. Oscar S., Texas Christian University, Fort Worth.
Clough, Dr. G. O., Dallas, Texas.
Cowan, Mr. S. P., Temple Public Schools, Temple.
Craig, Mrs. Mary C., Texas Wesleyan College, Fort Worth

Crouch, Mr. B. A., Texas Christian University, Fort Worth.
Denton, Mr. A. E., Texas A. and M. College, College Station
Dotson, Dr. Elsie, The University of Texas, Austin.
Eakle, Miss Betty, Southwest Texas State Teachers College, San Marcos.
Ellen, Sister Mary, Incarnate Word High School, San Antonio.
Estill, Miss Mary, San Houston State College, Huntsville.
Ewing, Dr. J. Ralph, Fort Worth.
Gill, Miss Eula Lee, University Junior High, Austin.
Guinn, Mr. Ernest, Cleburne High School, Cleburne.
Hunt, Mr. Allen, Texas Christian University, Fort Worth.
Kingston, Dr. A. J., Texas A. and M. College, College Station.
Lacy, Mr. J. M., East Texas State Teachers College, Commerce.
Lawrence, Mr. E. M., Sweetwater Public Schools, Sweetwater.
Leavitt, Mrs. Mable, Texas Christian University, Fort Worth.
Ligon, Mr. John R. Jr., Gulf Oil Corporation, Houston.
Lindsay, Mr. Hague, Fort Worth Public Schools, Fort Worth.
McHenry, Mr. F. N., Tennessee Gas Transmision Company, Houston.
Martin, Dr. R. C., Fort Worth.
Meacham, Mr. William, Fort Worth Public Schools, Fort Worth.
Miller, Mr. Walter C., Baylor University, Waco.
Morlan, Dr. G. C., Abilene Christian College, Abilene.
Murphy, Dr. Harold, East Texas State College, Commerce.
Nielsen, Dr. Otto R., Texas Christian University, Fort Worth.
Patrice, Sister Margaret, Incarnate Word College, San Antonio.
Patterson, Mr. James W., Cleburn Public Schools, Cleburne.
Pelletieri, Dr. A. J., University of Houston, Houston.
Remund, Mr. Miles, Temple Public Schools, Temple.
Rouse, Dr. Margaret, Texas Christian University, Fort Worth.
Shepherd, Miss Carrie, Southwest Texas State Teachers College, San Marcos.
Simons, Mrs. Ireta, Riverside Junior High School, Fort Worth.
Stevens, Mr. M. F., Arlington Public Schools, Arlington.
Themesbundy, Mrs. Elsie, Cleburne Public Schools, Cleburne.
Thomas, Miss Leona, Southern Methodist University, Dallas.
Viola, Sister, Our Lady of the Lake College, San Antonio.
Wallace, Miss Laura, Mineral Wells Public Schools, Mineral Wells.
Warren, Mrs. Cora Sue, Humble Oil and Refining Company, Houston.
Weir, Dr. W. C., Schreiner Institute, Kerrville.
Westbrook, Miss Mary Hope, Tarleton State College, Stephenville.
White, Dr.Leonard, Fort Worth.
Williams, Dr. C. C., North Texas State Teachers College, Denton.
Wiseman, Mr. Ben, Highland Park High Schools, Dallas.
Wyatt, Mr. O. D., Fort Worth Public Schools, Fort Worth.
Young, Dr. M. M., Texas Christian University, Fort Worth.